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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,997	06/06/2001	Pan-Jin Kim	1317.1055D	8166

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,997

Applicant(s)

KIM ET AL.

Examiner

Hunter B. Lonsberry

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/

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/6/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,661,472 to Shintani.

Regarding claim 1, Shintani discloses a method for displaying channel information (column6, lines 33-41, figure 4) on a digital television for receiving digital mulit-channel television broadcasting comprising the steps of:

Changing a current channel to a demanded major channel in response to a demand to change a major channel (step 405, column 5, lines 1-38),

Displaying on a TV screen (step 420) minor channel numbers of programs received through a currently selected major channel (column 6, lines 33-42).

Regarding claim 7, Shintani discloses a method for displaying channel information on a digital television for receiving digital multi-channel television broadcasting (column6, lines 33-41, figure 4), comprising the steps of:

selecting a radio frequency channel corresponding to a major channel number selected by a user (step 405, column 5, lines 1-38),

displaying one of programs of minor channels received through a currently selected major channel by said selected RF channel as a viewing program (column 6, lines 21-41); and

displaying minor channel numbers received through said major channel on a television screen (column 6, lines 33-42).

Regarding claim 10, Shintani discloses that when a user inputs a major channel number, the lowest number channel is displayed (column 5, lines 30-37, column 6, lines 8-17) and that when a channel is tuned to, a menu of minor channels is displayed (column 6, lines 21-41).

2. Claims 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,002,394 to Schein.

Regarding claim 15, Schein discloses a method for displaying channel information on a digital television for receiving digital multi-channel television broadcasts (column 6, lines 37-41) comprising the steps of:

Displaying a channel select menu on a television screen in response to a demand from the user (Figure 17b, column 22, lines 47-61, Figure 16a, column 21, lines 20-30, 61-column22, line 1), wherein the channel select menu includes a scroll bar

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window 20 having a scroll bar moving area split into predescribed areas (up and down area and indicator of current place within the channel listings) so as to cover all received channels and includes a channel window for displaying channel numbers of partial channels corresponding to a position of the scroll bar (column 21, line 61-column22, line 1)

Determining if said scroll bar moves (column 21, lines 32-42, 61-65), and changing channel numbers on said channel numbers on said channel window to channel numbers of channels corresponding to a position of said scroll bar (column 21, line 61-column22, line 1, the channels listed in 506 change as the user scrolls).

Regarding claim 16, Schein discloses determining if one of the channel numbers displayed on channel window 506 is selected (column 12, lines 19-31),

And if the channel number is selected selecting a channel of the selected channel number (column 21, lines 19-31).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,661,472 to Shintani.

Regarding claim 4, Shintani discloses presenting a display of minor channel numbers, which are selectable by a user.

Shintani fails to disclose hiding the minor channel numbers after a prescribed time period elapses.

The examiner takes official notice that hiding channel numbers after a certain time passes is notoriously well known in the art. For example, when a user tunes to a channel, the channel number is displayed for a few seconds and then fades, thus unobstructing the video program content.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shintani to hide the minor channel numbers after a prescribed time passes, thus unobstructing the video program content.

Regarding claim 5, Shintani discloses that a user may change to a minor channel and the display of minor channel numbers will be displayed on the newly tuned channel (column 6, lines 21-43).

4. Claims 2, 8, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,661,472 to Shintani in view of U.S. Patent 6,763,522 to Kondo.

Regarding claim 2, Shintani discloses presenting a display of minor channel numbers, which are selectable by a user (column 6, lines 33-41, 53-55), but does not disclose if the numbers are displayed in number order.

Kondo discloses a major and minor channel number display system, which displays the minor channel numbers in order (figure 2c), thus enabling easy navigation of the sub channels.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shintani to display the sub channel numbers in numerical order as taught by Kondo, thus enabling easy navigation of the sub channels.

Regarding claim 8, Shintani discloses displaying the minor channel numbers on screen (column 6, lines 33-41).

Shintani fails to disclose if the minor channel numbers are arranged in a prescribed direction.

Kondo discloses displaying the minor channel numbers in a prescribed direction (figure 2c), thus enabling easy navigation of the sub channels.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shintani to display the sub channel numbers in a prescribed direction as taught by Kondo, thus enabling easy navigation of the sub channels.

Regarding claim 11, Shintani discloses that when a user presses a +/- button the corresponding minor channel is selected (column 6, lines 12-17).

Regarding claims 12 and 14, Shintani discloses changing channels via +/- keys, if said channel up key is pressed, determining if the minor channel number of said viewing program is the highest number among said programs (column 6, lines 11-20);

if the minor channel number of said viewing program is the highest number, displaying a program of the lowest minor channel number as said viewing program and returning to said step of displaying minor channel numbers (column 6, lines 11-20, tunes from channel 4.1 to channel 5);

if the minor channel number of said viewing program is not the highest number, displaying a program of a higher number adjacent to the minor channel number of said viewing program and returning to said step of displaying minor channel numbers (column 6, lines 11-20, tunes from 4.0 to 4.1);

if a channel down key is pressed, determining if the program number of said viewing program is the lowest number among said programs (minus key 120 tunes to the news lowest adjacent channel, column 3, lines 10-14, 46-50, column 6, lines 11-20)

if the minor channel number of said viewing program is the lowest number displaying a program of the highest minor channel number as said viewing program and returning to said step of displaying minor channel numbers (minus key 120 tunes to the

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news lowest adjacent channel, column 3, lines 10-14, 46-50, column 6, lines 11-20, thus a user tuned to channel 5, would tune to 4.2); and

if the minor channel number of said viewing program is not the lowest number, displaying a program of a lower number adjacent to the minor channel number of said viewing program (minus key 120 tunes to the news lowest adjacent channel, column 3, lines 10-14, 46-50, column 6, lines 11-20, therefore tuning from 4.2 to 4.1),

and returning to said step of displaying minor channel numbers (column 6, lines 21-41).

Regarding claim 13, Shintani discloses that when a user presses a +/- key the viewing program is changed to the corresponding next major/minor program (column 6, lines 12-17).

5. Claims 3, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,661,472 to Shintani in view of U.S. Patent 6,763,522 to Kondo in further view of U.S. Patent 6,137,539 to Lownes.

Regarding claim 3, Shintani discloses displaying the major channel along with a number of minor channel numbers (column 6, lines 33-60).

The combination of Shintani and Kondo does not disclose if the minor numbers are displayed after a major number, but does disclose that a user must enter a major number first before entering a minor number (Figure 2a).

Lownes discloses a digital television status display in figures 3a-f, in which a major channel number appears first followed by a minor channel number (column 8, lines 5-14), thus enabling easy navigation of the sub channels.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shintani and Kondo to display minor channel numbers after a major channel number as taught by Lownes, thus enabling easy navigation of the sub channels.

Regarding claim 6, Shintani discloses presenting a display of minor channel numbers, which are selectable by a user.

The combination of Shintani, Kondo and Lownes fails to disclose hiding the minor channel numbers after a prescribed time period elapses.

The examiner takes official notice that hiding channel numbers after a certain time passes is notoriously well known in the art. For example, when a user tunes to a channel, the channel number is displayed for a few seconds and then fades, thus unobstructing the video program content.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shintani, Kondo and Lownes to hide the minor channel numbers after a prescribed time passes, thus unobstructing the video program content.

Regarding claim 9, Shintani discloses displaying the major channel along with a number of minor channel numbers (column 6, lines 33-60).

The combination of Shintani and Kondo does not disclose if the minor numbers are displayed after a major number from the highest minor channel, but does disclose that a user must enter a major number first before entering a minor number (Shintani Figure 2a).

Lownes discloses a digital television status display in figures 3a-f, in which a major channel number appears first followed by a minor channel number (column 8, lines 5-14), thus enabling easy navigation of the sub channels.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shintani and Kondo to display minor channel numbers after a major channel number as taught by Lownes, thus enabling easy navigation of the sub channels.

The combination of Shintani, Kondo and Lownes does not disclose arranging the minor channel number so that the highest number is displayed first.

The examiner takes official notice that displaying channel numbers descending order is notoriously well known in the art. A sequential descending order display of numbers provides an intuitive way of browsing a sequence of channels.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shintani, Kondo and Lownes to display the channel numbers in a descending sequential order, thus providing an intuitive interface of browsing a sequence of channels.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-272-7298. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL


CHRIS GRANT
PRIMARY EXAMINER